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ABSTRACT

Barriers to the use of The Electric Company (TEC) instructional television (ITV) series in primary education classrooms are examined. Findings from interviews with teachers in classrooms where ITV facilities are available and professional ITV spokespersons are summarized. Based upon the findings from these interviews and past ITV research, the author's recommendations for the promotion and utilization of TEC include: (1) promoting the interest and awareness of the TEC series through general publicity and by messages within the TEC programs themselves, (2) developing and distributing promotion packages geared to the special needs of target audiences, (3) developing inexpensive user guides for distribution to teachers one to three months before their school year starts, and (4) communicating to users TEC research and effective usage ideas. (CMV)

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Barriers to Classroom Use of THE ELECTRIC COMPANY: A Formative Analysis

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by

Keith W. Mielke
Bloomington, Indiana
May, 1977

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My sincere appreciation - - -

- - to over a dozen ITV personnel who not only shared freely their professional insights but also, in many cases, went to great effort to help arrange interviews with classroom teachers;

- - to 70 teachers who shared their personal views of THE ELECTRIC COMPANY;

- - to my wife Pat and my friend Jim Webster for their valuable assistance;

- - to the Children's Television Workshop for giving complete autonomy in the conduct of this study.

If this study has value, it is because of these helpful persons. Thank you all.

Keith W. Mielke
May, 1977

"...the most frequently broadcast instructional program in recent years has been 'The Electric Company.'"

* * * *

"The impact of 'Sesame Street' and 'The Electric Company' on traditional K-12 ITV services cannot be overestimated."

* * * *

"The current ITV picture appears to be one of consolidation. Production costs have gone up; school systems often have less to spend on ITV; the quality of CTW programs has shifted some stations' opinions about the nature and value of their own productions; students and teachers are less patient with unsophisticated productions; pooled production resources in consortia, state groups, regional networks, or on a national scale create better programs."

-- Natan Katzman,
Program Decisions in
Public Television, 1976.

"On a normal schoolday, the average station transmits almost four and one-half hours of in-school programs which surround the PBS-interconnected 'Sesame Street' and 'The Electric Company.' Few if any other school programs occupy the amount of time or appear with such regularity as the CTW programs."

* * * *

"School television. . . is a local activity in the extreme. Most of the decisions are made at the individual classroom level. The teacher is the person who decides to use, or not to use, a particular school television program. A television series may be purchased and made available for use by the school district or the state education agency. It may be promoted and broadcast by the local public television station. It may be recommended by the principal or a content specialist working for the school system. But the classroom teacher is the person who turns on the set."

* * * *

"...(A) lesson learned by CTW as well as by utilization specialists at state and local television agencies has been that teachers don't turn on television without being motivated to do so. Major promotional activities were the key in CTW's experience in initiating program use. But simple word of mouth and personal contact by utilization and curriculum specialists have proved equally effective."

- - Saul Rockman, "Instructional Television is Alive and Well," in The Future of Public Broadcasting, 1976.

"...principals generally welcomed 'The Electric Company' and had high regard for its utility in an instructional sense, but adoption of the series is not a matter on which they independently, or, as we put it in the questionnaire -'finally,' decide. Principals are no doubt often an inspiration to teachers who do decide these matters, just as they doubtlessly sometimes discourage new ventures. On these finer points in the flow of influence, a mailed survey is just inadequate to make a full analysis. It should nonetheless be accepted by now, as was first indicated in last year's study, that schools maintain a strong tradition of emphasizing teacher autonomy in the selection of many types of instructional aids or techniques.

- - Roland J. Liebert, "The Electric Company" In-School Utilization Study, 1973.

Foreword

The Electric Company is no longer a novelty, but a familiar presence since 1971 in U.S. classrooms and homes. It may be ambitious now, six years down the road, to hope for truly new insights into barriers to classroom use of the series. It makes sense, however, to take stock of how teachers and ITV personnel relate to The Electric Company as long-term service, as opposed to being the "new kid on the block," and to update the mental imagery of television in the classroom.

A description and analysis of non-technical barriers to classroom use of the series necessarily includes a search for and airing of criticisms. A willingness to step under such a searchlight from a position of strength and a long record of success, in hopes that things learned in the process might be helpful in planning improved services to schools, is an attitude in the best spirit of formative evaluation. I have tried to carry through with that formative evaluation attitude --- the desire for improvement via corrective feedback --- in the conduct of this study.

I have not prepared a special Executive Summary, because the reader with only ten minutes to spare can simply scan the table of contents, go directly to the final chapter, and thereby get some sense of "the bottom line." Many of the impressions from

the field, however, are based on detailed descriptions of particular environments. To get this "flavor," one needs to read the entire report. I hope several of you find the longer trip worth the effort.

Keith W. Mielke
Bloomington, Indiana
May, 1977

Chapter One: Introduction

Background

The Children's Television Workshop (CTW) recently published a booklet called "THE ELECTRIC COMPANY, Television and Reading, 1971-1980: A Mid-Experiment Appraisal." From this booklet, one learns, for example, that THE ELECTRIC COMPANY (TEC) - -

- - premiered in 1971 on the 250+ stations of the Public Broadcasting Service;
- - was funded from multiple sponsors at a level around $5.5 million for each season through 1976;
- - has now produced more than 700 programs;
- - will use alternating reruns of the 260 episodes of the 75-76 and 76-77 seasons through 1980;
- - has steadily evolved from a series intended primarily for in-home viewing to a series intended primarily for in-school viewing;
- - will continue a program of research and utilization even after new productions have ceased.

These last items - - - the increasing emphasis on in-class utilization, and the continued post-production research efforts with TEC - - - provide the environment for this study: A Formative Analysis of Barriers to School Utilization of The Electric Company.

As TEC goes into its post-production years as reruns, CTW would like to do whatever is possible to maintain and enhance classroom use of this widely-acclaimed series. Now that the content has evolved to its final state and can be specified completely

in advance, CTW plans are underway to mount a renewed effort to increase both quantity and quality of TEC use in schools. This effort is to be informed and guided in part by two new, independent, and complementary research studies: an updated national survey of current TEC utilization levels; and the present study of barriers to classroom use of TEC. This study, therefore, is designed primarily for in-house use at CTW. Its narrowly-defined purpose is to identify, analyze, and suggest feasible intervention strategies regarding barriers to classroom use of TEC. Nevertheless, the issues at a more general level may be of interest to a wider group of readers within the professional ITV community.

Types of Barriers

A barrier is anything standing in the way of goal achievement, and the goal in this case is threefold: (1) to retain loyal TEC users; (2) to increase classroom use of TEC; and (3) to facilitate access to and use of quality support materials and utilization strategies. As CTW mounts a campaign to enhance in-class use of TEC, one input among several will be this analysis of barriers. A logical first step is to determine what barriers are and are not susceptible to change through CTW initiatives. In that light, three categories of barriers are considered here.

Physical/Technical Barriers. A major class of barriers, determined in previous survey work,* was physical/technical. Before a teacher can use TEC, several things must happen at a minimum:

1. Program signal must be available (via public station broadcast, ITFS, cable system, tape replay, or whatever).
2. Program scheduling must be compatible with teacher-controlled activities. For example, TEC must be available during school hours, at a time of day when reading is to be taught, with no conflict/overlap with lunch periods, recesses, etc.
3. Teachers must have reception equipment that works.

A school not meeting any and all of those conditions does not have the technical capacity to use TEC. While these conditions may appear to be dichotomous, yes/no criteria, they frequently are matters of degree. Signal may be available but of marginal legibility. It may be possible but highly inconvenient to incorporate TEC at its time of broadcast. Reception equipment may be available, but at such inconvenience as to not make the "hassle" worthwhile.

In any case, it can be seen that this important class of physical/technical barriers is not directly susceptible to CTW

*Roland J. Liebert. "The Electric Company" In-School Utilization Study. Vol. 2: The 1972-73 School and Teacher Surveys, and Trends Since Fall, 1971. Center for the Study of Education, Institute for Social Research, Florida State University, in conjunction with the Statistics Research Division, Research Triangle Institute, October, 1973.

initiatives.* It seems self-evident that the best prospects are not in schools that cannot use TEC because of physical/technical barriers. This is not to write off the more difficult challenges, such as expanding the distribution system and equipping the schools, but to seek efficiency in using limited resources. Capability and use were estimated in Liebert's data from the 1972-73 survey (p. 48) as follows:

1. About 40% of U.S. elementary schools were not technically capable of receiving/using TEC.
2. About 35% were technically capable and were using TEC.
3. About 25% were technically capable but were not using TEC.

The best prospects, then, are in that estimated quarter of the schools that supposedly can but do not use TEC. Perhaps the barriers preventing use within those schools can be feasibly addressed by a CTW campaign.

Organizational/Systemic Barriers can also be discerned. Examples would include lack of support, or even actual disincentives, from the teacher peer system, the principal, the school

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*This is not to underestimate the indirect consequences of particular programming. That is to say, physical/technical barriers are more likely to be overcome at the local, state, and regional levels when programming is available that is perceived by teachers to be addressing real needs and to be of high quality. In this extended sense, an improvement in any element of the system will work for the benefit of the system as a whole.

board, the parents, the community, or the state. It seems reasonable to expect that the presence or absence of physical/technical barriers is more often than not associated with the presence or absence of organizational/systemic barriers, with each category influencing and being influenced by the other. This is simply supposing that school systems that really want ITV are more likely to find ways to get it, and systems that have ITV technical capabilities are more likely to remove barriers to its effective utilization. Nevertheless, it was still expected, and later confirmed, that in isolated instances there would be no physical/technical barriers to using TEC, and non-use would be traceable instead to some organizational/systemic barrier. Consider again the intended use of the barrier analysis: to assist CTW efforts in enhancing school use of TEC. In terms of feasibility for CTW intervention, organizational/systemic barriers are a "gray area," neither clearly within nor beyond the reach of CTW interventions. When organizational/systemic barriers came up naturally in the course of the investigation, they were duly recorded. Direct initiatives, however, were not taken to highlight this class of barriers, precisely because their status vis-a-vis direct external intervention was not clear.

Teacher Decision Barriers. Having determined what type of schools to examine, who actually makes the decision to use or not use TEC in such a school? Data from the 1972-73 TEC survey (Liebert, op. cit., Tables 7.2 and 7.3) show that school principals

consider the predominant decision-makers to be the individual teachers, and by a wide margin over principals, school boards, teacher committees, or external administrators.

"Teacher decision barriers" refer here to teacher perceptions of barriers. These perceptions lead to teacher decisions to not use TEC, to overcome the barriers and use TEC, or whatever. Stated more simply, an attempt to assess teacher decision barriers here is an attempt to see the world through the eyes of the teacher, and to place TEC in that world. Technical capabilities (physical barriers) are, of course, part of the teacher's world, but the design of this study calls for teacher interviews only in technically capable schools. The world of the classroom teacher, therefore, is the prime target area for exploration for two major reasons:

1. This is where the decision to use or not use TEC is likely to be made. The power of this individual determination should not be underestimated. For example, instances were cited in this study where teachers, determined to use ITV in spite of barriers, would bring their personal TV sets into the classroom. Teachers determined to incorporate follow-up activities for TEC, in spite of no budget for prepared materials, would create their own. Individual teacher determinations work the other way as well. There were instances of non-use in spite of every reasonable physical and organizational support for using TEC (or ITV in general).

2. Among the spectrum of barriers described above, the perceptions of the individual teacher may be the most accessible to communication efforts from CTW (whether direct or mediated). To the extent that perceptions of barriers are based on incomplete or incorrect information about TEC goals, content, sequencing, available utilization materials, successful utilization practices, research documentation, adaptability to specialized uses, recording rights, and the like, then a campaign of information and persuasion can be responsive to those barriers.

Self-reported reasons for use and non-use of TEC were thus sought from teachers in technically capable schools. Chapter Two tells the story of those interviews.

Looking only at technically capable schools also puts one into areas most likely to be served by ITV coordinators who perform ITV service functions for teachers, such as assistance in scheduling and utilization. These service personnel grapple daily with the ITV barriers and facilitating elements faced by the classroom teacher. ITV coordinators, therefore, are also an excellent source of insights into why teachers do and do not use TEC when it is technically possible to do so. Chapter Three tells the story of the interviews with professional ITV spokespersons.

Limitations of the Study

The modest scope as well as the rather informal nature of this study should be understood at the outset. The modest scope is commensurate with modest goals and modest resources for the study. The informal nature is deliberate; that is, the informality of method is not considered here a poor and compromised approximation to rigorous survey work, but a qualitatively different method of inquiry, pursued for qualitatively different purposes (vis-a-vis traditional pre-structured surveys).

The intent is not to test hypotheses, but to uncover insights for the generation of hypotheses and administrative insights. The intent is not to make national parameter estimates, but to envision behind-the-scenes rationales for other descriptive research (such as the recently commissioned national survey of the extent of TEC in-school use). The intent is not to hold questions and stimuli constant throughout, and to control out individual variations as much as possible, but to seek out variations and to encourage full, idiosyncratic explanations of individual circumstances. The means are not by way of quantified data summaries, but by way of analysis of verbal self-reports. The procedures have less in common with theoretical research than with investigative journalism. The range of options and conclusions was not assumed at the outset, but was developed incrementally throughout the course of the study. This study per se will not control any follow-up decisions, but will be one source of input alongside several others. The goal is not to

find "answers," but to seek understanding and to make plausible suggestions for management to consider. While these polarized characterizations could be extended considerably, hopefully this is sufficient to convey the thrust of what this study is --- and, equally important, what it is not --- intended to do.

Chapter Two: Interviews About TEC with Teachers

Procedures

The previous chapter gave the rationale for (1) concentrating on barriers to in-school use of TEC, and (2) looking for these barriers among classroom teachers in schools technically capable of using the series. This screening criterion of technical capacity was then overlayed on four conditions, as follows:

	prior TEC use	current TEC use
condition 1:	yes	yes
2:	yes	no
3:	no	yes
4:	no	no

These very categories had been used in Liebert's earlier surveys, but in those instances, entire schools were classified into one of the four conditions by their principals. In this study, on the other hand, we concentrated on the link in the chain where utilization finally does or does not take place: the classroom and the teacher. Within any one technically capable school, there could in principle be teachers in each of the four categories listed above.

These four categories were considered useful for this study because of the different lines of inquiry they suggested. A long-term, steady user (yes-yes) could be asked what elements of TEC were critical for past and continued use. A previous user (yes-no) could be asked why TEC was dropped, and what would be required to start using it again in the future. The non-user

(no-no) could be asked for the reasons for non-use, and what it would take to initiate trial use. Given the long run of TEC on the air (since 1971), the most problematic category was correctly anticipated to be the recent adopter (no-yes). It was difficult to locate teachers in this category. Even when located, teachers tended not to be slow adopters, but people who recently entered the teaching profession, or people who were only recently transferred to a grade for which TEC was judged appropriate.

A goal was set to interview about 60 classroom teachers, primarily by telephone, on reasons for use and non-use of TEC. The idea in the interviews was to attempt to understand the use or non-use of TEC through the eyes of the teacher, and to interpret that viewpoint from the teacher's own words. Therefore, there were no elements of a traditional pre-structured survey instrument here. We simply explained to the teachers what we were trying to do, and asked for the story of their own experiences, opinions, and ideas.

A typical teacher interview would evolve through three stages:

1. establishing rapport through easy-to-answer factual/descriptive questions, such as number of pupils, reading level, number of years in teaching, use or non-use of TEC, etc.;
2. getting the teacher to tell his/her own story, including critical incidents, reasons for use or non-use, and suggestions; and

3. getting reactions, when it seemed appropriate, to ideas suggested by other interviewees.

Various means were used to locate teachers for interviewing from technically capable schools, but by far the greatest success was achieved by going "through the system." This typically involved going first to ITV coordinators and then either directly to teachers, or to principals and then teachers. For reasons of economy, given the multiple constraints on this study, we tried to keep interviews nearby, in the mid-west area. Teacher respondents came from Indiana, Illinois, Ohio, Kentucky, Tennessee, and Missouri.

Teacher interviews ranged in length from about five minutes to well over half an hour. Useful information was transcribed during or soon after the interview on a summary form prepared in advance, becoming the "raw materials" for the analysis of teacher-generated barriers to classroom use of TEC.

A few cases presented some problem of category assignment, in terms of the four classifications described earlier. A few other cases turned out to be located in schools that did not completely satisfy the three-fold criterion for technical capacity to receive TEC (good signal available, during school hours, with adequate access to operational classroom reception equipment). Taking into account the judgments required by such cases as the above, 70 completed teacher interviews were distributed as follows:

Use of TEC prior to 1976-77	Use of TEC in 1976-77	
	YES	NO
YES	24	26
NO	4	16

These further subdivide into grade levels as follows:

	yes-yes	yes-no	no-yes	no-no	TOTAL
Kindergarten				1	1
First	4	2	1	1	8
Second	6	3		4	13
1-2	2	1			3
Third	5	9		5	19
3-4		1			1
Fourth	5	4	1	1	11
Fifth	1	3		2	6
3-4-5	1			1	2
Sixth		2			2
Special Ed.		1	2	1	4
TOTAL	24	26	4	16	70

From the pool of teacher interviews, four "dimensions" are summarized in this chapter:

1. reasons for use of TEC;
2. reasons for non-use of TEC;
3. teacher suggestions for changes in TEC; and
4. teacher styles and methods for utilizing TEC.

Within these four dimensions, the findings and impressions are presented without attempting further interpretation, without probing the implications, and without making recommendations. Chapter Three, which describes several interviews with professional ITV spokespersons, similarly withholds comment. It is in Chapter Four that impressions from both teachers and ITV personnel are tapped for the summary analysis and recommendations.

Teachers' Reasons for Use of TEC

A large number of teacher statements are grouped here into various clusters, such as why the teacher first started using TEC, what are major benefits of TEC, what are the favorite attributes of TEC, controversial rationales for using TEC, and miscellaneous supportive commentary. Coming mostly from teachers who do use TEC, these supportive rationales are the opposite counterparts of barriers. These volunteered rationales are also candidates for inclusion in campaigns of information and persuasion, because of their known relevance to use of TEC.

Reasons for initiating use of TEC. In some, but not all, of the teacher interviews, the subject came up of how or why the teacher started using TEC in the first place. The diversity of the volunteered rationales is interesting:

- - We just got TV sets at our school.
- - My principal (or supervisor) recommended TEC to me.
- - I heard good things about TEC from other teachers.
- - Most of my fellow teachers were using TEC.
- - I had seen TEC at home with my own kids, and liked it.
- - My college professor encouraged her class of prospective teachers to use TEC.
- - I received advertising about TEC and started using it from the beginning.
- - I used TEC as a student teacher.
- - Some of my pupils don't have access to television at home.

Perceived major strengths and benefits of TEC. Continuing non-statistically, the range of commentary on strengths and benefits can be represented by the following summary paraphrases:

- - TEC "sneaks in" concepts without kids being aware they're being taught.
- - TEC catches attention; it's colorful, attractive, entertaining; kids love it.
- - TEC works well with my kids because it doesn't evaluate their learning.

- - My kids respond actively to TEC; they sing along and they guess words.
- - TEC is a useful reference; I can say "Remember on TEC...," and they usually do.
- - TEC works well for reinforcement.
- - Older teachers use TEC for play time; younger teachers use it for teaching. My kids are very excited about TEC; it extends what I have taught.

Favorite attributes of TEC.

- - Particular characters or features mentioned

  Very Short Book
  Easy Reader
  Spider Man
  Letter Man

- - Production elements mentioned

  animation
  silhouette vowel blending
  mystery elements
  flashing words
  music

- - Pedogogical elements mentioned

  good presentation of word decoding
  repetition is good
  learn to analyze words
  learn word sounds, syllables, consonants, etc.
  visual associations aid memory
  older children on the show are easy for my fifth graders to identify with

Controversial rationales for using TEC. This category contains some reasons for using TEC, volunteered by teachers, that would probably not get a consensus of approval from ITV utilization experts:

- - TEC is a break from the classroom routine.
- - TEC keeps the kids quiet (unless something funny is happening) while I grade papers.
- - TEC is a nice "extra"; it's the "cream on top of the ice cream."
- - I can use TEC as a reward. If my kids don't have their work done, they have to go to another room and finish it, and they miss TEC. They're very disappointed if they don't get to see it.

Miscellaneous supportive commentary.

- - I feel that TEC really does improve reading scores.
- - TEC is excellent for low achieving students.
- - TEC makes reading drill more palatable.
- - I get a big kick out of TEC myself, like "The $6.39 Man" and "dump truck" segments.
- - TEC does things difficult or impossible for classroom teachers to do, like making it possible for kids to hear and see vowel sounds simultaneously.
- - Children themselves comment that they learn from TEC (also from home viewing).
- - The various ethnic groups on TEC are good for kids to see.
- - TEC is better than teaching machines.
- - I turned on TEC for my lower reading group. Others could watch or do something else. Most chose to watch.
- - A colleague feels that TEC gets the kids too wound up and uncontrollable. I feel just the opposite. Learning is taking place spontaneously, with no effort.

Teachers' Reasons for Non-Use of TEC

As with the volunteered reasons for using TEC, the reasons for non-use are grouped into clusters. At least as perceived by the teachers themselves, these are the barriers to classroom use of TEC. The following categories are employed for presenting these barriers: criticisms of entertainment in TEC; other criticisms of content and style in TEC; beliefs that TEC is too elementary; beliefs that TEC is too sophisticated; scheduling problems, supplementary materials problems; and miscellaneous criticisms.

Criticisms of entertainment in TEC.

- - Too many gimmicks; too much singing and dancing; too much rock 'n roll.
- - I couldn't justify sending a child to the library (where the TV set is) to watch TEC for half an hour, because I'd say almost three-fourths of it is dancing and playing.
- - Amount of material learned is not enough to warrant having my class watch TEC for half an hour.
- - Kids enjoy TEC but don't learn much; kids get involved in the entertainment and miss the point of the lesson.
- - I asked kids after the show what they had learned, and they couldn't tell me --- they were carried away in the entertainment.
- - There's no retention of the lesson, but the kids remember the jokes.

- - TEC induces passivity; kids sit back to be entertained.

Other criticisms of content and style in TEC.

- - TEC was going too "far out" in its presentation, and I stopped using it.
- - I've heard other teachers object to language and segments that were a little risque, like using the words "jelly belly" in a dancing sequence. Teachers in the South don't go for that kind of thing.
- - Second graders can be taught without using such expressions as "belly."
- - I don't like the choice of words in TEC; they use street language.
- - TEC is not cultured or cultivated.
- - People in TEC have little voice control --- they are loud, shouty, and harsh.
- - At times I think TEC is not a good influence on children; I feel the program could be a little more wholesome.
- - TEC occasionally uses incorrect English.
- - My kids are already hyperactive; TEC keys them up more, and the kids start doing the slapstick stuff.
- - There are so many blacks in the show, and the show is so jazzy that it upsets the kids.

Beliefs that TEC is too elementary.

- - TEC is too elementary for my fifth graders.

- - My students don't need TEC this year.
- - My kids have seen TEC for several years; they're less interested in it now.
- - I (third grade teacher) perceive TEC as stressing phonics, which I feel is more appropriate for younger readers.
- - Third graders don't need reinforcement in the concepts covered by TEC.
- - In our open environment classrooms, the three third grade teachers talked about using TEC, but thought it wasn't advanced enough.
- - Although I do use TEC, one or two parents of my fifth graders have objected that TEC is below the children's level.

Beliefs that TEC is too sophisticated.

- - A lot of the humor is above the kids; for example, they don't "get" the play-on-words type of humor.
- - The program moves too fast; the kids who need the learning most can't understand and follow fast dialogue.
- - I'm not sure how much of TEC material "connects" with first, second, and third graders. Older children exhibit more "carry over" of rules, but these rules have not been internalized with the younger kids. Younger kids can't internalize rules with TEC's "hit and miss" approach, a half-hour

twice a week. It is too long between segments teaching the same concept, and the kids just don't remember.

Scheduling problems. Whether from the teacher's or the broadcaster's viewpoint, scheduling was cited over and over as a problem. Probes on this issue with teachers, however, leave a strong impression that the tolerance for scheduling problems varies a great deal. What is a minor inconvenience for one teacher is perceived as an insurmountable barrier by another. Furthermore, there is a residual impression that some teachers cited "scheduling problems" almost as a catch-all phrase, instead of analyzing and articulating more precisely their specific problems with TEC. The entries below illustrate the range of commentary that (1) relates, at least loosely, to scheduling; and (2) seems not to be catch-all phrases.

- - TEC broadcast time conflicts with gym, recess, lunch, special classes, etc.
- - TEC takes too much class time.
- - A half-hour is too difficult to incorporate into the day's teaching.
- - I don't have a TEC schedule to follow.
- - What I have going on at any one time takes priority over a broadcast of TEC.
- - I prefer to use ITV in the afternoon; mornings are best for teaching.
- - My own teaching is more beneficial for the kids than TEC is.

Supplementary materials problems. The vast majority of teachers we talked with had no knowledge of the existence or variety of supplemental materials that are available for TEC. Psychologically, these materials didn't exist. For some, the lack of good materials was actively considered a barrier to use of the series. These reactions are illustrated below.

- - I can't afford the supplementary materials.
- - I've seen TEC's Activity Book, but I don't use it. So much other material has to be learned, and I don't want to overwork my kids.
- - You don't get the benefit from TEC unless you prepare the kids in advance and then follow-up with supplemental materials and activities. That takes an hour, and the payoff is just not worth it.
- - I was not aware that TEC supplementary materials existed; I might reconsider using it now.

Miscellaneous criticisms and problems. Entries in this section are here, not because they lack importance, and not because they came as an afterthought, but because they would not readily cluster. In no particular order, residual teacher commentary on reasons for non-use (or problems with use) of TEC are as follows.

- - I'm sorry they removed the kids from performing on TEC.
- - I don't use TEC because I don't use any ITV in my classes; I don't like ITV.
- - TEC doesn't correlate with the reading program here.

- - I'm not familiar with TEC.
- - I have too many children in a small room, and they seem disinterested.
- - My TV set is not working now.
- - It's not convenient to view TEC; I'd have to take the kids to another room.
- - TEC is a hard act to follow; the kids would want their teachers to be entertainers.
- - I live in an area where the predominant religion does not believe in music, and I'm not sure the parents would approve of TEC.
- - I was enthusiastic about TEC's attempt to teach possessives, because that's so hard to teach, but the kids didn't seem to have absorbed or remembered it when they needed it later.
- - Kids with reading problems in my school are tutored.
- - Kids can see TEC at home.
- - Increasingly, kids are having more difficulty with reading comprehension than with vocabularly; I don't think TEC really improves reading comprehension.
- - It's hard to use TEC for everyone when individual reading abilities vary so much.
- - TEC is not listed (approved) for kindergarten or first-grade use.

Teachers' Suggestions for Changes and Improvements

The two previous sections in this chapter have pursued teacher perceptions of what's going right and what's going wrong vis-a-vis TEC. This section pulls together the constructive suggestions for improvement that were either volunteered or in response to a direct request for recommendations. Many of these suggestions, naturally enough, do not take into account the fact that the form of TEC is now fixed, and that new production is not scheduled. Entries below are not sub-categorized further, and are presented in no particular order.

- - For ease of scheduling, I'd opt for two 15-minute sections of TEC, back to back.
- - For school use, cut out some of the entertainment, and squeeze the content of a present program into 15 minutes.
- - There is too much skipping around. Do phonics in sequence.
- - Adjust supplementary materials for various reading levels.
- - I can only watch the first 15 minutes of TEC; cut out the long opening sequences and get right into the show.
- - Organize the series by specific reading skills (contractions, vowels, etc.).
- - Put TEC on cassettes for student use-on-demand in the school library or media center.

- - Send TEC talent out to the schools; the kids would love to meet them.
- - Suggest follow-up activities in the program itself.
- - Don't let TEC talent do commercials.
- - Have a version of TEC geared to the older child with reading difficulties. Put more stress on phrases and sentences than on sounds.
- - Let teachers know about the supplementary materials that are available.
- - Make in-service training on utilization available to teachers who want it.
- - Correlate the TV series with classroom curriculum.
- - Improve the grammar.
- - Develop drill exercises.

How Teachers Utilize TEC in the Classroom

As the comments below will show, utilization practices vary widely. It is clear from the interviews that some teachers were getting far more "mileage" out of TEC than others were, because they were actively harnessing the motivational and instructional power of the series, exercising guidance and control in their classrooms. Several impressive utilization practices were being done without knowledge or benefit of professionally-prepared utilization materials. Other utilization practices, particularly passive practices of simply turning on the set, were less praiseworthy. All encountered types are illustrated below.

- - With my first graders, we only watch 15 minutes of TEC at the first of the year, until the children build up their attention span.
- - We do pronunciation exercises in class the way they are done in TEC in silhouette.
- - My kids have to have their work done before they get to watch TEC.
- - I get my kids to write down words as they are presented on TEC. Then we talk about them later, and do exercises with them.
- - I pin letters on the kids' shirts, and they rearrange themselves to spell different words, just like they do on TEC.
- - Watching TEC is a very active experience with my class. We sing along with the show, and we run races with the TV characters in pronouncing or recognizing words.
- - I make up word games and crossword puzzles on my own and ditto them off for classroom follow-up activities.
- - I like to switch on TEC at the end of the day, when the kids are too tired and restless for heavy instruction.
- - I don't do preparation or follow-up activities. The kids enjoy it, and I grade papers while it's on.
- - TEC rarely coincides with my lesson plans in reading, but I let the kids watch it because it works well as reinforcement.

Chapter Three: Interviews about TEC with Professional ITV Spokespersons

Background

As discussed previously, the decision was made to examine barriers to classroom use of TEC only in schools having the technical capacity to use the series. Schools with the best ITV technical capacities tend naturally to be schools serviced by a variety of ITV personnel who operate and service that technical capacity. While the final decision to use or not to use TEC in the classroom comes predominantly from the classroom teacher, good insights into that primary level of decision-making can be gleaned from the support personnel who deal with those teachers on ITV issues. For example, ITV support personnel are uniquely qualified - -

- - to provide overview analyses of how teachers in an area feel in general about TEC;
- - to assess how TEC is used and evaluated in the area relative to other ITV series in use;
- - to provide insights into barriers, opportunities, and idiosyncracies at the local distribution level, including their own role as a "gatekeeper" in that distribution and utilization process.

The specifications for this study gave considerable flexibility and autonomy to the principal investigator in augmenting or complementing the teacher interviews, which were the primary

units of study. Options considered for using the minimal resources for such augmentation included interviews with principals, reading specialists, and ITV support personnel. By far, the greatest return for purposes of this study was believed to come from talking with ITV support personnel. In a marketing analogy, CTW would be a "manufacturer" for national distribution; the "customers" (but not the ultimate consumers) in this case would be the classroom teachers; and the "local retailers" would be the ITV support personnel. Just as feedback from the customers and their local retailers should be useful to the national manufacturer, so should feedback from teachers and ITV support personnel be useful to CTW in its quest to maintain and enhance classroom use of TEC. This chapter on insights from professional ITV spokespersons, therefore, is an important part of the overall study; it represents a wide variety of perspectives from the field on what is going well and not so well vis-a-vis TEC, and why.

Remaining sections in this chapter will review the several forms of organizational structures in which ITV operates in this country; comment on the procedures used in the interview process; and, finally, summarize (in first-person paraphrase) thirteen interviews about TEC with professional ITV spokespersons.

The Varieties of ITV "Gatekeepers"*

All television audiences are in some form of sociological setting, but the level of organizational formality and complexity is much higher for school audiences than for home audiences. Layers of organizational structure in ITV ripple outward from the classroom teacher. Perhaps as a consequence of the strong commitment to local as opposed to national control of public schools in the U.S., the national picture of ITV organizational structures is not simple to characterize, because it varies so much from one place to the next. Although it would be well beyond the scope of this project to attempt a detailed description of the various ITV organizational structures, a general summary of organizational types will be attempted. The approach is to start with organizations (or types of organizations) that cover or service the largest number of ITV classrooms, and work downward in scope until the vast majority of ITV organizational relationships have been represented. The residual minority of exceptional and unique ITV settings will not be grappled with here, nor will such issues as (a) local schools falling under the domain of more than one ITV organization, (b) local variations within a generic type of organization, or (c) the overriding influence of particular personalities, regardless of organizational structure.

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*In this summary of the varieties of ITV organizational structures, I gratefully acknowledge my debt to Mr. William Perrin, Agency for Instructional Television, for sharing with me his impressive knowledge of the various ways ITV gets into classrooms. In this summary of a complex topic, I, of course, assume responsibility for any errors of commission or omission.

Largest among the organizations with ties to local teachers by way of ITV support services are the regional networks; e.g., the Eastern Educational Television Network (EEN), the Central Educational Network (CEN), and the Southern Educational Communications Association (SECA). A CEN document entitled "The CEN/ITV Council," dated March 15, 1974, includes the following summary of services offered, which may be representative of this category of regional networks:

- - scheduling and distributing of an initial package of new program series,
- - exploring additional series to be offered,
- - negotiating group rentals from program distributors,
- - investigating the establishment of a regional library of programs from which the membership can draw for individual scheduling,
- - developing activities for professional development,
- - soliciting advice from Council representatives on local, regional and national matters relating to ITV services.

In such a regional network setting, communication with individual teachers would not be direct, but would be filtered through at least one more "gatekeeper" at the local or state level.

According to the hierarchical principle set out earlier, the next entry would be state networks. Proportionately more ITV classrooms would be affected by a single decision maker in states where a single broadcast license is used to provide common service throughout the state (e.g., Kentucky) than in states where the stations are licensed individually (e.g., Pennsylvania). To add further to the complexity, some state networks are administered through state departments of education and some are not.

Next in order of magnitude would probably be school television service organizations. As with the other categories, there are internal variations here, the main one being whether management identifies or is affiliated primarily with a public television station or with a group of schools. Sometimes the school television service organization is an administrative unit (usually self-supporting) within a PTV station, sometimes within the school system, and sometimes it takes the form of an external non-profit organization. The marketing analogy referred to earlier is particularly applicable here, because the school television service organizations survive only by "selling" ITV services to schools, where dues are typically assessed on a per-pupil basis. A full range of services would include assistance in program selection/acquisition/scheduling, providing in-service teacher training for utilization, supplying teacher guides, and conducting series evaluations and utilization surveys.

PTV stations owned by school systems constitute a "vanishing breed," but surviving examples tend to be in major school systems (e.g., Los Angeles) and account for a lot of students. The decline in this number of PTV stations owned by school systems is attributed to the financial squeeze on the schools, coupled with the reluctance to furnish program services during non-school hours.

Another significant point of entry is through organizations that use instructional television fixed service (ITFS). Major among these is the Catholic Television Network (CTN), which is

comprised of ten dioceses, each of which holds the license for a four-channel ITFS system for intra-diocese distribution to individual Catholic schools. Collectively, CTN is not a true network in the electronic distribution sense, but operates more as a buying cooperative in order to enjoy certain economies of scale. Individually, each diocese's ITFS system distributes programming from various sources, including taping from local PTV stations for delayed ITFS distribution.

There is in addition a sizable pool of ITV settings that refuse to fit one of the more generic categories above, such as closed circuit and cable systems. Some regional educational service agencies are extending ITV programming by extending PTV signals through cable, tape, and ITFS into previously unserviced areas. Some individual schools tape programs off the air and redistribute them within the building. With assistance from state departments of education, some schools get local commercial stations to feed ITV programs to the area. There are undoubtedly variations and combinations in addition to those mentioned here.

One objective of this oversimplified summary of ITV organizational types is to highlight the bewildering complexity of organizational structures that stand between (a) the program supplier (e.g., CTW) or even the initial program distributor (e.g., PBS), and (b) the consumers in the classroom setting (teachers, pupils). How stark is the contrast with the in-home setting, where there are few if any structural interventions between the broadcasting

station and the audience member. Relatively few instances of ITV use will fall outside the domain of one or more of these mediating organizational structures. That is why the input of ITV coordinators and some understanding of their organizational settings are considered useful in this project.

Procedures

Thirteen interviews were conducted with professional ITV personnel falling under an interesting variety of titles and roles. Some interviews were done by telephone, and others were done face-to-face in site visits. Some persons were interviewed more than once. Most, but not all, of the professional ITV interviewees work within the five-state area of Indiana and surrounding states. As a group, when compared to classroom teacher interviewees, the ITV personnel tended - -

- - to place TEC in a broader context of other ITV;
- - to have given quite a bit of thought already to the barriers issue, and thus be quite articulate and make reference to multiple examples;
- - to make reference to survey and research work conducted routinely in their district for administrative feedback purposes;
- - to require fewer guiding questions in the interview;
- - to hold longer interviews (ranging up to well over an hour).

As with the teacher interviews, the objective was to try to understand the way in which TEC was perceived in its environmental context by the interviewee, as told in his or her own words. All interviews did not cover the same set of topics.

The interviews in the next section tell their own story, filling out a mosaic piece by piece. Intervening commentary is judged unnecessary. The interview content as presented here is paraphrased and edited to get to the point and to fit the requirements of the written medium. Great care has been taken, however, to convey faithfully the ideas, insights, arguments, and recommendations of the interviewees. To enhance the readability of the interview reports, the first-person report form is employed. Again, please keep in mind that this is not a transcript, but a heavily summarized paraphrase.

Summary Paraphrases of the 13 Interviews (written in first person)

Interview #1 (professional ITV spokesperson working in a state department of education). Even after programs for children are produced and distributed, there are numerous barriers to their effective use. Many of these barriers don't lend themselves to formal assessment, and I have no hard evidence, but I do have several hunches and insights about these barriers, based on my own experiences around the state.

TEC was originally designed for in-home viewing primarily. There it is available to kids on demand and under kids' control. Some teachers look on this as a plus and others as a minus. Some think the repetition helps, but others think that if a child says "I already saw that on TV last night," it somehow erodes the impact that the teacher hoped it would have in the classroom.

We tell teachers that if they haven't seen ITV in the last five years, they haven't seen ITV. There is now available a whole new generation of fine ITV series, some of which now deal forthrightly in the affective domain with a host of sensitive issues. Such series are sometimes threatening to teachers. I'm not talking about the old threat, now essentially dead, that teachers feel they might be replaced with ITV. Current perceptions of threat vis-a-vis ITV lie more typically either in discomfort with the content or concern with community reactions to the content. Some teachers who have initially cooperated in experiments with affectively oriented series have later dropped out because they didn't feel competent in handling the non-cognitive material. TEC is not so directly involved in the affective domain, so that may be less of an issue for CTW. The other aspect is sentiment within the local community. There is no doubt that some communities have very strong convictions about some areas of content, such as sex education. Schools, being extensions of local communities, are very sensitive to community feeling. Whenever teachers perceive an ITV series as being locally sensitive or controversial, that's an argument in their view against using it. In this regard, it is just possible, and I don't know whether this is or is not the case, that middle-class communities would feel that TEC was targeted specifically for disadvantaged urban kids, and not reflective of the cultural outlook they want for their kids.

To improve classroom use of TEC, CTW could make a special effort to enable teachers to visualize themselves in classroom settings successfully utilizing TEC. We know that well-executed workshops, where teachers are dealt with respectfully as individuals, can be quite effective in making converts to ITV use. The average teacher still comes through his or her entire professional training with no exposure at all to classroom utilization of television, and this in spite of the fact that kids spend more time with TV than anything else. When a teacher is really motivated to use television, he or she will even drag in their own TV set to the classroom, if necessary. The problem is to develop this level of motivation initially. CTW could use the television medium to make a model utilization presentation. Traditional utilization workshops use person-to-person communication, of course. CTW could enlist the aid of the "great unsung heroes" who are just waiting on the sidelines to be utilized in such an effort as this: these are the local library media people. Get good materials into their hands, and they could plan whatever is needed at the local level. The power of the medium could carry it from there. Most library personnel are perpetually in a budget crunch, so these media packages should come at no cost. CTW has made very effective utilization presentations in the past at professional conventions. The same kind of thing could be done on videotape.

Local library media people might serve in other ways as well. It might be possible, for example, to circumvent a lot of barriers

standing between children and good ITV programming by putting cassettes into the libraries, giving children direct access to programming on request. The special TEC project at Lincoln Heights in Cincinnati gives some idea how the amount and effectiveness of ITV utilization goes up when barriers are removed and encouragement is maximized.

Interview #2 (professional ITV spokesperson in charge of ITV services at a PTV station). In response to your inquiry about what CTW could do to enhance classroom use of TEC, we must keep in mind that TEC is now in total repeats, and Sesame Street is in limited new production. Although both series continue to be used in schools, the Nielsens indicate that their in-home audiences numbers are down. Both are very good series, however, and they deserve a strong effort to keep them competitive. What can be done? We should have a massive promotional effort: newspaper ads, TV Guide ads, radio and television spots, and the like. The absence of this strong push to keep the series alive keeps reinforcing the notion that the programs are old re-runs. CTW needs to re-involve teachers, parents, and kids in the program, recreate some of the excitement of the original effort. With Sesame Street, if you would ask parents what that series was about, they'd say it was to teach the ABC's. CTW's curricular developments of the past several years are one of TV's best kept secrets. At the station level, it's been a very long time since anyone from CTW contacted me about school use of Sesame Street or TEC. There

used to be a strong CTW presence at professional meetings, but this too has changed. At the recent SECA meeting, for example, there was no CTW presence at all. CTW has dropped the ball on promotion of its series, both with the public and with the stations.

The biggest barrier to in-school use of TEC involves poor handling of supplementary materials. With TEC now in re-runs, a good teacher guide for all shows should be no problem. Historically, this has been a problem. Where other series required only one mailing per year to the schools, TEC took two mailings, and even then we received CTW materials so late that we were barely able to get them to schools by air time. Guides are needed in August. Guides would ideally be free, but if they must be sold, they should not cost more than $1.25 per copy. Stations need a comprehensive listing of all series-related materials that are available. Information on activity books and games tends to come through the back door; consequently a lot of key people who should be well informed about supplementary materials are not informed.

My reaction to a film strip/audio cassette on utilization of TEC in the classroom? We have little if any use for film strips. I'd use a video cassette, but not a film strip.

Interview #3 (professional ITV spokesperson in charge of ITV services at a PTV station). We enlist support for an entire package of ITV services by persuading schools to "affiliate" with us. This means that schools pay the station about $1.50 per pupil per year. In turn, the station provides not only a substantial block of ITV programs, but also a complete line of supportive materials and services, such as teacher guides, newsletters, follow-up materials, broadcast schedules, utilization workshops, engineering consultation, and, when possible, videotaping rights.

This year, TEC is broadcast at 9:00 a.m. Tuesdays, Thursdays and Fridays, and at 1:30 on Mondays and Wednesdays. Because of teacher needs, we will increase the number of TEC broadcasts next year to 7---Monday through Friday at 9:00 a.m., plus Tuesdays and Thursdays at 2:30 p.m. No matter how we rearrange the broadcast schedule, we will never please every teacher, however, and various teachers will cite scheduling as their major problem with the series.

We offer over 50 ITV series for the elementary grades, and we conduct utilization surveys among affiliated schools every year to see what is being used, and how we can improve our ITV offerings or services. The most recent survey shows that TEC is used by more elementary teachers than any other series we offer.

For 1976-77, TEC guide materials included a reduced-in-size photo copy of The Electric Company Book of Games, Puzzles, and Songs. Next year, we will distribute full-size photocopies of The Electric Company Activity Book at substantially lower cost than buying originals.

We have had some problems over the years in getting CTW program information on time. In the first year of TEC, we relayed CTW releases on show-by-show content to the teachers. CTW delivery of these schedules was not reliable, however, and the teachers would blame us for the tardiness. Even now, it's a month-and-a-half into the school year before we receive the TEC Newsletter, which is not good timing for us. I willingly go to a lot of special effort to keep up to date on CTW materials and to get these to the teachers, because the affiliated schools are buying a total package of ITV services.

Even so, it would be better from my point of view if CTW dealt with me more directly, more frequently, and with a wider range of services and materials. For example, it is great PR for the series when I can distribute cast photos from TEC; the kids love them. When I am asked to make a presentation to a group of school administrators or to a parent group, it is helpful to have materials to share and research results to cite. CTW could help me by providing promotional materials specifically targeted to the needs of different audiences. For example, administrators are interested in cost effectiveness; teachers are interested in utilization ideas and in what learning

results to expect; parents need to be educated as to what ITV is and how it differs from commercial entertainment programming which is associated with sex and violence. (CTW once sent out a promotion kit that was too big for a file drawer. The idea was probably to keep it from being filed and forgotten, but what happened was that it got stuck behind somebody's desk and was lost.) I also think people in ITV have a general professional responsibility to tell the ITV story to teachers-in-training at the college level. That's yet another significant target audience with specialized information needs.

I'm concerned about how TEC is utilized in the classroom when the support materials and services are lacking or are not used. There is a tendency for teachers to look at TEC as an educational babysitter, and to differentiate its use from "real" teaching. The support materials and services reinforce the concept of TEC as a solid educational endeavor. More and more teachers are finally starting to see TEC as a real teaching tool.

There is another aspect to the close tie-in with support materials, and that is what happens with schools in our coverage area that do not affiliate and hence do not get our materials and services. Because it was originally designed for each show to stand on its own with the home audience, it is likely that more non-affiliated schools are able to utilize TEC (with no supplementary materials or services) than would be the case for some of our other ITV series. In our coverage area it is unfortunate that the city schools themselves, which contain large

proportions of low income and minority students, feel they cannot afford to affiliate with our station's ITV services. In that environment, it may be to the advantage of the inner-city kids that TEC can be used all by itself --- even as a babysitter. It would clearly be better, however, if we could get city schools back in the fold where they could and would benefit from the support services, and we're making progress toward that end.

The kinds of criticisms about TEC received by the station tend to fall into clusters of the following:

- - TEC provides poor examples. Some feel that the phrase "who dunnit" teaches bad grammar, and "Jack fell down and broke his crown and Jill laughed herself silly" gives a poor model.

- - TEC has too much entertainment, too much singing and dancing, etc.

- - TEC is too difficult for our kids in this area to relate to (no rural or suburban settings, too much emphasis on urban settings and minority group cast members).

Interview #4 (professional ITV spokesperson who supervises a two-channel non-broadcast ITV system). We are funded by the public school system, and we provide two-channel, day-long ITV services to the schools. We use films, tape series from libraries, tape-delayed distribution from public television, as well as local productions from our two fully-equipped studios. We've done what we can to remove physical and technical barriers to school use of ITV. Each classroom has its own receiver. We can play programs several times to help teachers overcome scheduling problems. Our ITV content goes through a process of examination and approval by subject matter supervisors. In numerous

and tangible ways, therefore, the teachers know that the school system is supportive of their using ITV if they wish to do so. In this supportive environment, classroom use of TEC has been high right from the beginning of the series. A recent survey shows that TEC had the highest number of classroom users among 32 ITV series available to elementary teachers, and was second highest in teacher judgments of instructional effectiveness. TEC is approved for use by about 430 teachers in grades 2 and 3, and is conditionally approved (for classes reading below fourth grade level) for about 425 teachers in grades 4 and 5. In rough figures, 600+ of these 800+ teachers in grades 2-5 are using TEC in their classrooms.

We do not relay TEC programs into our system as they are being broadcast on public television. Instead, we tape for selective, delayed distribution of two TEC programs per week, each played three times, as follows:

	TEC program A	TEC program B
Monday	10:10	
Tuesday	11:10 1:25	
Wednesday		10:10
Thursday		11:10
Friday		1:25

Our "ITV cycle" is 17 weeks per semester, or 34 weeks per school year. Therefore, 68 TEC programs are used per year, each of which is taped well in advance, and later played three times per week, as shown above. Programs distributed in the fall semester were

taped during the previous spring semester. Programs distributed in the spring were taped in the previous fall semester.

The rationale for this procedure is as follows:

1. Everything we distribute has an advance teacher guide. By knowing well in advance the content of each of the selected programs, teacher guides for an entire semester can be distributed before the semester begins, in time for semester planning by the teacher.
2. The language arts supervisor for the system feels that a proper scale of use for TEC is twice a week, given the press of other teaching goals and given the variety of methods used for teaching reading.
3. An extensive tape delay permits the language arts supervisor to re-sequence the programs to coincide with our system-wide reading curriculum.

The budget for any supplementary materials to accompany TEC would not come under individual principals, but would come under the general subject matter expert, the language arts supervisor in this case. The TEC activity books and magazines are too expensive for us, and they are not purchased for the system. To be seriously considered for purchase in lots of over 600, as needed here, supplementary utilization materials should probably cost no more than 50¢, and certainly no more than $1.

Our guides introduce TEC as follows:

> In grades two and three, use of ELECTRIC COMPANY is suggested as one teaching tool to help introduce and reinforce certain language arts skills and concepts. Use of the series above grade three should be limited to fourth and fifth graders achieving under the fourth grade level. Another way of putting it is that pupils viewing ELECTRIC COMPANY should be reading at Holt levels 9 through 12.
>
> Occasionally, characters in this series will use vernacular and informal speech in the interest of realism. For example, dropping the "g" in "-ing" is not uncommon. Teachers should point out the difference between formal and informal English and show that each has a place in our life.

We also have another use for TEC in our schools. Since over 95% of the pupils eat lunch at the schools, some teachers have requested a special service of lunch period programming, to serve as a diversion. Therefore, we draw programs from about four different series judged to have high entertainment values as well as educational values for this lunch period programming. This service, called "Lunchtime Theatre," includes selected programs from TEC.

We are neither budgeted nor staffed sufficiently to conduct ITV workshops and utilization sessions. The general feeling is that intelligent teachers can and do handle ITV just fine without special training of any kind, particularly training from "outsiders." Teachers sharing utilization ideas and experiences with other teachers would be a good idea, but it would be difficult even there to mandate teacher time for such activities.

In general, I have no complaints with TEC, and no suggestions to improve it.

Interview #5 (professional ITV spokesperson serving as a utilization specialist). It's reasonable to assume that more teachers will use supplementary guide material for TEC or any ITV series if those guides are easily obtained. Now put yourself, for example, in the shoes of an elementary teacher in [regional subdivision of a midwestern state]. S/he gets a newsletter in May from the ITV regional service center, which states, in part:

> Plan now, carefully, for ITV next year. Get your manual orders in to your principal or ITV chairperson as soon as possible so you're sure to have the manual when school starts next fall. See page 7 for the order blank.

OK, the teacher turns to page 7, which is an order form for the guides that accompany over 50 ITV series to be shown during school hours in 1977-78. The form gives the name of the series, the price of the accompanying material, whether it is a teacher guide, discussion leader guide, supplementary reading for students, or whatever, and a blank for the teacher to fill in how many copies s/he needs. There are two series on the form, however, where the blanks are blacked out: TEC is one and Guten Tag-Wie Geht's is the other. For these two entries, the teacher is told in a parenthetical comment to order direct. At the bottom of the form is a box number in Birmingham, Alabama to write for TEC's newsletter, and another address in Chicago for the other series. I think the relative ease of ordering the great majority of ITV guides, and the relative difficulty of ordering TEC guides, would be working against the use of TEC guides, at least for some teachers.

A better plan in my view would be for CTW to augment its centralized distribution with local distribution. I'll make the case for using regional ITV persons to distribute both teacher guides and utilization kits. CTW could probably find ways to "wholesale" teacher guides to regional ITV personnel at discounts of 15-20% under "manufacturer's suggested retail price." Bulk shipping alone saves 10%. This gives regional personnel a little margin to pay for costs incurred in selling and distribution, and you have a motivated "retailer" working for you at the local level, where the teachers are, and you make it a lot easier for the teacher to order the guides.

Consider now utilization kits. I'm convinced that some excellent ITV series fall far below their potential utilization levels because teachers were not sufficiently informed on how to use that series in ways that would be satisfying and rewarding in the classroom. When a teacher finds a certain ITV use to be unpleasant or unrewarding, there is strong motivation to not use the series. My point is that the way in which it is used can frequently mean the difference between satisfaction and frustration. There is a lot of regional and local organizational machinery, all highly motivated to keep ITV usage up and working well, that can be put in the service of utilization. It's virtually impossible, however, for CTW or anyone else to maintain one-on-one utilization training sessions at the school building and local teacher level. This level can be penetrated, however,

by regional ITV coordinators. Given a quality utilization kit, they can either conduct utilization sessions for teachers on their own, or they can circulate the utilization kit to more local levels, such as ITV coordinators for a school system or even a school building. Such a kit would contain both materials and instructions. Materials would include such things as promotional brochures for handing out in large quantities, teachers guides, posters, and logo materials for producing promo spots. The instructions can function almost like programmed instruction on how to conduct this utilization workshop: here's what you must know about your group of teachers, here are essential points to be made about the series, here are suggested discussion questions and follow-up activities for the teachers in the workshop, and so forth. An entire in-service strategy that reflects the best thinking of a team of specialists can be brought to bear when a quality utilization kit is made available along with the series. These kits would not per se be a direct pitch to the local teachers, but would be aids to local personnel in conducting utilization workshops for local teachers.

I think regional ITV personnel could be enlisted to work in the service of TEC with regard both to teacher guides and utilization workshops. Their motivation would not be profit, but in strengthening the solidity of their ITV service as a whole. To survive, regional ITV people need to demonstrate maintenance and growth of satisfied customers. Given that TEC is in their ITV

block, it is in their best interests to see that TEC is used and used properly.

You asked about alternatives to going through regional systems, such as going directly to classroom teachers through massive direct mail campaigns, and so on. It is clearly possible to do that. Services are available for purchasing addresses of schools, or even of teachers. I'd have two qualms about such an approach: (1) it is extremely expensive; and (2) there are real limits on what you can expect to happen as a result of mailing something to teachers. In a non-trivial thing, such as initiating ITV use, you need a "warm body" to talk with fairly early in the process. Given adequate funds, the ideal strategy in my opinion would be to combine (1) direct mail to the teachers, (2) direct mail to principals, (3) personal, telephone, and mail contact with PTV stations and regional ITV people, and (4) presentations in all relevant professional conferences for teachers or ITV personnel. This is vastly oversimplified, because goals for each component would have to be specified, etc. The point to make, though, is that direct mail to teachers would probably work much better if followed up with personal contacts by CTW people, or, perhaps more feasibly, by regional ITV personnel who had in turn been contacted by CTW.

Interview #6 (professional ITV spokesperson, managing an ITV school service organization affiliated with a PTV station). During the first year of the Station Program Cooperative (SPC), the station did not buy into TEC, but did buy into Sesame Street. The cost to the station of the two CTW programs was about the same, but TEC, being only half as long, was therefore twice as expensive on a per-minute basis. Partly in a spirit of protest against this apparent imbalance in pricing, the decision was made not to run TEC in the first SPC year. This brought some flak from teachers in the area, but not a lot. At any rate, TEC was picked up the following year and has been run ever since, and it's doing very well in schools. A recent survey of teachers in the region indicates that TEC is considered the most valued course by teachers of any ITV series carried. Some other series are watched by more teachers, but none has a more favorable evaluation.

Teacher guide usage with TEC, however, is only one-third the norm for this region: averaged across all ITV series, 77% are using teacher guides; for TEC, however, teacher guide use is only 23%. The big problem with TEC supplementary material is that it is distributed nationally from a centralized source. Other ITV series, in contrast, administratively channel their teacher guides through my office, from which I communicate directly with utilizing teachers, and can promote guide use. I've been told that a subsidiary of XEROX handles all CTW guides from one centralized location. When a teacher asks how to acquire a guide for TEC, I pass on the address, but I feel sure that guide use

would increase substantially if they were distributed locally as with all other ITV series used. I would be willing to purchase a quantity of guide materials and "market" them locally, if this could be worked out, not to make money, but to provide a service to the teachers.

TEC now comes during the school day at 10 o'clock in the morning, when most area schools are in recess. Several teachers have indicated their desire to use the series, but they are unable to use it at the broadcast time. I would be willing to tape and rebroadcast some TEC programs at a more useful time, and I'm now doing some survey work to determine market demand for this service. ITV services are offered four days per week, not all five. I could not handle four tapings per week, but **could** handle one or two. Most teachers who use TEC do not use all five programs per week in any case. In fact, many teachers are not using the entire half-hour within single programs, because they don't have that kind of time available. Even within a thirty-minute broadcast time period, two fifteen-minute programs would be much more useful for in-school use.

Interview #7 (professional ITV spokesperson; manages a school-operated ITV channel on a commercial cable system). We operate an exclusive channel on the local commercial cable system, and we are funded entirely by the local school system. We used to subscribe, at a cost of $1 per student, to broadcast ITV services provided by this area's PTV station. The PTV station then raised

their prices to $2 per student, and we thought we could do better running our own system. We have a small color studio, videotape equipment, and an extensive tape library. We program about 25 hours of ITV per week on a teacher-demand basis.

The only program used in schools from the PTV station is TEC, but in-school use of that series is way down. In TEC's first year, we ran TEC, along with an extensive evaluation. Then a series of factors caused us to lose interest in it. We used to receive about 50 copies of TEC magazine, but they stopped coming. The broadcast was at an inconvenient time for us, but we were not allowed in those early years to tape the programs for redistribution. We don't carry the series at all any more. Teachers know the series is not available on our system and that we have no guides to distribute, and their interest in the series has generally extinguished. Even in the first year we received some flak from teachers and parents about spending school time watching a program that kids could watch at home. When we went to an individualized reading program awhile back, all use of TEC, except for a couple of special ed teachers, essentially stopped.

What would it take to get this system and our teachers back into active use of TEC? First, I'd have to have videotaping rights, so I could run individual TEC shows on specifically relevant content at times requested by the teachers. This would require a complete inventory of each program's content in a form that I could distribute to all teachers. There is no technical barrier at our end. We have all schools wired into the system, and they

have color receivers. The factor outside my control is teacher demand: they would have to request the series. On the clearances, and so forth, you could deal with me. On getting teachers interested in TEC again, you would need to deal directly with them, perhaps through an advertisement in a professional journal. There might indeed be a role for TEC under certain conditions. For example, even with our highly individualized reading program, the teachers are always looking for alternatives on what to do with a child when s/he is not in a particular group. It might be a very attractive option for a teacher to schedule specific shows on demand as an integrated part of the entire reading program.

My reaction to a filmstrip on utilization? It might be OK in a system where few of the teachers had any experience with ITV. Our teachers would find it insulting.

Interview #8 (professional ITV spokesperson who administers an ITFS system). We simulcast TEC to our schools as it is broadcast in the mornings by the PTV station. Our survey data indicate that over 6,000 pupils viewed TEC in 1976-77. That's not the most highly viewed series (some series were viewed by twice as many children), but TEC is one of the most highly valued series among teachers who use it. In both absolute scale values and relative to our other ITV series, TEC is favorably evaluated by teachers in terms of content, student interest, instructional value, objectives, and in stimulating professional growth for the

teacher. I think part of the reason that the level of viewing is not similarly high is TEC's program length: it's very difficult to schedule a busy class day around a 30-minute program; a 15-minute program would pose far fewer problems.

The school board office sells and distributes program manuals to the schools in our system, but they felt that TEC manuals were too expensive to stock, so we don't handle them. We simply pass on to the teachers the address where manuals can be purchased. One consequence is that I have no idea how many teachers have or use the manuals. My instinctive feel is that most of them do not use any supplementary materials with TEC, but simply turn it on and take what's there. This goes against all my philosophy in the use of ITV. The use of manuals would go up if the price would come down below $1.50 per copy.

Since we have our own full-time staff for training our teachers in utilization of ITV, we would have little need of a utilization film strip on TEC.

Interview #9 (professional ITV spokesperson affiliated with a regional network). Regional networks are a useful administrative vehicle. They can react quickly to station needs. They can process group purchases of programs/series for regional distribution.

PBS deals only with stations. In ITV, the stations may or may not be where the action is. In Illinois, for example, ITV decision-making flows through the State Department of Education.

Regional networks know who in fact is in charge of ITV at various locales. My network has 48 ITV contacts throughout the various states in the coverage area, and these 48 contacts get right to the grassroots via contacts with individual teachers. Through this mechanism, I can get access to teachers in the field within five days, using the mails.

The biggest problem with TEC, in my view, is also an opportunity for another CTW series now in the planning stage that could also be used in schools. TEC does not have --- but the new series should be sure to get --- one-year recording rights. In my view, this is probably the most important element in facilitating use of ITV in the classroom.

Interview #10 (professional ITV spokesperson who manages a regional ITV service agency). We don't put a lot of emphasis on facilitating in-class use of TEC. The major reason is CTW's method of distributing ancillary materials. CTW doesn't work with ITV agencies, but works instead on a national subscription basis. Locally, all we can do is pass along a national address to local teachers. CTW seemed more sensitive to local needs at the beginning of the series, but more recently they seem to simply put the series on PBS and let it go. CTW is not interested in whether a school system is a member of any regional service group or not.

Most teachers around here don't use TEC all five times a week, but only once or twice. Unfortunately, most teachers are

not using any teachers guides with the series. We used to try to keep up with the series by reprinting content summaries in our local newsletters to teachers, but the information kept arriving too late from CTW for us to reliably deliver this as a service, so we quit that entirely.

The biggest single step CTW could take would be to work through regional service agencies in getting materials to the teachers. My organization would be happy to serve as local distributors for CTW materials.

Interview #11 (professional ITV spokesperson, serving as ITV coordinator for a public station). I consider myself to be, among other roles, an ITV "salesman," but teachers are already familiar with TEC, so current or potential users need no further persuasion on my part. The biggest problem and barrier to in-class use of TEC is the time of broadcast. The current morning slot comes at recess time in many schools. In response to a few vocal teachers, I once changed TEC to an afternoon slot, but that caused a different set of problems, so I changed back to morning. You can't please all the teachers on the scheduling issue.

I offer teacher guides for every ITV series carried except for TEC. At about $8 per copy, the TEC Activity Books are far too expensive.

Precise utilization level of TEC is unknown because my annual surveys refer mainly to the ITV service as a whole. I do know,

however, that TEC has a loyal following among the teachers, who use the series mostly for reinforcement, reward, or supplementary functions. I feel that teachers don't take TEC seriously as a "hard core" teaching/learning instrument. A film strip of model classroom use of TEC might be useful.

My particular ITV operation is administered through the local PTV station. As members of the Station Program Cooperative, we feel that, since we have paid a good part of the bill for TEC, we should have the right to use that program however (and whenever) we see fit.

Interview #12 (professional ITV spokesperson, serving as a regional instructional communications consultant). The Newsletter for TEC is good, but it arrives too late to be of much utility. Teachers must know ITV content well in advance if they're going to really teach with a series. Otherwise, they'll just use the programs as a babysitter. TEC should be promoted and used for more than a babysitter function, because the series is good. Teachers and ITV people in my area have been told by someone that TEC guidebooks are no longer available. In this one district, there are over 3,000 teachers who have been told this.

My reaction to a filmstrip on TEC utilization? I have no need for the filmstrip because I have a videotape that deals rather well with TEC utilization. I don't know where the tape came from originally or how long it has been in the department.

One problem with TEC can be traced to an ITV sampler that circulates throughout the state. The sampler contains a segment from TEC that uses bad grammar. This turns many teachers off at the outset. They feel they'll have to deal with re-teaching and undoing incorrect learning if they adopt the series.

In a state-wide survey, many teachers wanted TEC broadcast at 10:00 Central Time, to fall just before the 10:30 recess.

CTW should keep the regional people informed and up to date, and working for TEC at the grassroots level.

Interview #13 (professional ITV spokesperson serving as a media director in a school district). ITV in general faces a lot of problems. It's expensive to set up in the first place; maintenance is expensive; scheduling of programming is always a problem; administrators are not committed to it; much of the programming quality is bad; teachers still don't associate good teaching with use of television, and utilization habits are poor. The picture for ITV is not bleak in my particular district, but I don't think we are very typical. Most school districts don't have a media director or coordinator like me. I'm a full-time media coordinator, but I'm also head of libraries. Most media coordinators are regular teachers (like science teachers or anyone with a little knowledge of TV or film) who are given a few extra dollars a year to distribute films, etc.

One of my greatest successes with teachers has been when ITV is utilized in cassette form. Teachers feel more comfortable with cassettes than with 16mm film, and the cassette gives them greater control and flexibility than broadcast television does. As we and most other districts grow in cassette capability, one of our biggest issues to grapple with will be the copyright law. Across the country, people are not familiar with the law, and cassette technology makes widespread copyright violation easy. As models for the young, schools have particular ethical obligations, and it's certainly not a good example to break the copyright law.

More and more schools are getting into video cassette. Every school in my district has a video cassette system. I've built up a library of 300-500 TV programs, legitimate, available to teachers within a day or two of request. I resist ITV series that only offer 7-day taping rights. Most good teachers will not use materials that are thrust upon them suddenly: "Here, take this. I've only got it for seven days. Use it." A good teacher does not plan her schedule day by day --- that's sheer suicide --- only new teachers, or teachers who don't give a damn. Good teaching requires advance planning. That's why the cassette (and forthcoming, the video disc) and copyright issues are so important in ITV. CTW could increase the use of TEC in the schools by offering better holding rights.

Administrators tend not to understand media; they attack it and support it for the wrong reasons. In a budget crunch they

will instinctively put ITV in the portion of the budget to be cut. Administrators of course do influence teachers, but this has real limits. For example, if a principal is really pushing something without genuine teacher support, it's just a matter of time until that thing will fade out. A united front by the good classroom teachers can be very influential on administrators, on the other hand, which is why grass roots support by teachers is absolutely essential for ITV. This support comes when the teachers' real needs are being met. I call it my "dirty dishes theory." If you do the dirty dishes for someone, they're going to let you do them. If ITV can do something for them that's better or that they can't do in any other way, they are going to incorporate and support ITV.

There is still a dysfunctional guilt feeling with ITV that needs to be rooted out --- the feeling that it's somehow not real teaching to "watch television at school." The best approach for this is to better prepare teachers in ITV classroom utilization. Much of teacher training in audio-visual is mechanical, how to get this or that machine to operate. What is needed, instead, or in addition, is training on how to function with media materials as part of the process of instruction.

One of the things you could do with TEC would be for a staff of curriculum experts to put together detailed lesson plans for each and every show in the series. Without integration into lesson plans, ITV is used mostly just for enrichment or as a reward for good behavior.

Chapter Four: Summary Analysis of Barriers and Recommendations for Addressing Them

Introduction

What are the barriers to classroom use of TEC that something can be done about, and what courses of action in that regard are feasible? Those are the questions that generated the study in the first place, and the note on which this report concludes. It is only prudent to point out that this final step consists mostly of professional value judgments, and that reasonable people, even operating on a common base of information such as that contained in the previous chapters, can disagree at this juncture on what it means and what should be done. The course of action to be taken, if any, is for management to decide. The hope is that in management's eyes all of the following recommendations will be judged reasonable, and at least some will be persuasive.

If management's goal for TEC were simply to be competitive with other ITV series in terms of amount of classroom usage and teacher favorability, the conclusion implied by dozens of interviews and several local surveys is that nothing more is needed. Disregarding the Nielsen ratings, which apply only to in-home viewers, the "ITV ratings," at least at an impressionistic level, are excellent. TEC has been and is now in a position of strength vis-a-vis other TV series used in schools. If, in a flight of fancy, the goal for TEC were established to be universal admiration, acceptance, and use, then the insights gathered in this

study, and the voice of common sense, cry out to give up now. It is difficult to imagine a more clear-cut demonstration of the concept of "trade-off" than in television, where a truly constant stimulus encounters enormous variations of people and reception environments. In that interface, universal anythings are practically non-existent. Given the status of a very good relative position in the ITV context, and something far short of perfection on an absolute scale, the real question is whether TEC is reaching its full potential. This study suggests (1) that it is not doing as well in the schools as it can, and (2) that CTW initiatives responsive to some of the barriers cited could maintain and probably improve both the quality and quantity of classroom use of TEC. The summary recommendations that follow are geared to those expectations.

Promotion

The problem/barrier. There is considerable evidence of incomplete (and sometimes inaccurate)information about TEC and its supporting materials. This was particularly the case with teachers, and this can be at least partially explained by the hypothesis that the problem also exists among professional ITV personnel who serve as gatekeepers for teachers. A related secondary problem/barrier is that there are signs of erosion in the enthusiasm with which TEC is held in the minds of teachers and ITV personnel. A related third problem is an image, all too frequently found, that TEC is somehow not a serious educational tool, but is instead an enjoyable frill.

Summary recommendations. Promote the series heavily to maintain and increase interest and awareness. Points of information/persuasion should include:

- - TEC, a serious instructional tool, enjoys widespread use.
- - TEC's curriculum has been carefully developed by experts.
- - A great amount of research has gone into producing this content in ways that are appealing and fun.
- - Summative evaluations show that viewers learn from the series.
- - Teachers can get much more from the series when it is incorporated carefully into the curriculum (i.e. "utilized").
- - A full line of supplementary materials is available.

Use TEC programs themselves to communicate accurately the range of supplementary materials available, and how to get them. Possibly reduce opening and closing sequences enough to allow insertion of spot announcements for this information. A "national" spot would play automatically unless a "local" spot were substituted.

Develop and distribute promotion packages geared to the special needs and interests of school boards, principals, parent-teacher organizations, parents, and station managers (in addition to the obvious target audiences of teachers and ITV coordinators).

Incorporate research and survey results on TEC into these specialized packages. Through direct efforts or indirect support, develop means to coordinate the methodologies of dozens of independent local ITV surveys so their outcomes could be aggregated and/or compared. Consider developing a means to "piggyback" one or two items composed by CTW staff.

Utilization

The problem/barrier. In general, teachers are not trained in ITV utilization. There is considerable lack of information about supplementary materials (and even teacher guides) for TEC. TEC is sometimes utilized in the classroom merely for reinforcement or as a reward for good behavior, or even as an "educational babysitter," because that is how the series is perceived.

Summary recommendations.

Develop one, definitive teachers guide for the entire re-run series. Include a complete lesson plan for each individual program. Sell this for $1.50 or less per copy, or give free copying rights, or both. Get it into the hands of teachers at least 1-3 months before the school year starts, so they can incorporate it in their lesson plans.

Locate the most interesting and innovative classroom utilization ideas for TEC in practice by teachers. Find a way (e.g., by videotape, newsletter or filmstrip/cassette) to have these teachers share their positive experiences with other teachers.

Develop kits (filmstrips, video cassettes, print materials) to help local ITV personnel conduct in-service utilization workshops for TEC. Include step-by-step suggestions on how to conduct these so as to most accurately reflect the best thinking of utilization experts.

CTW should make presentations at professional ITV meetings, to keep key ITV gatekeepers informed about news at CTW, as well as supplementary materials, promotion aids, utilization ideas, and assistance in conducting in-service training.

Develop special utilization units that show:

- How to have ability groupings and still use TEC
- How to use TEC in special education classes
- How to fine tune the level of challenge/difficulty in TEC through the use of differentiated follow-up materials.

After having secured the most liberal taping/holding rights possible, make sure ITV personnel and teachers know about it. Have promotional efforts emphasize the increased flexibility---play all or part of any TEC program when desired, as often as desired, and in any sequence desired, as dictated by local needs.

Consider repackaging a TEC series for cassette distribution only. Consider reduction to 15-minute programs of higher information density, sequenced according to the most popular reading curricula (texts, etc.). Consider distributing these to ITV

centers for further duplication/distribution directly into school libraries, for student use outside formal classroom contexts.

Expand the CTW staff commitment to maintain two-way communication with ITV organizations of all types, not all of which operate directly through public television stations.

And finally, enlist the assistance of hundreds of professional ITV personnel with direct contact to thousands of teachers by involving them directly as "local retailers" in distributing TEC guides and supplementary materials. Continue centralized distribution of these materials for schools/teachers not serviced by professional ITV personnel.